

in the case of UC. **CONCLUSIONS:** These preliminary results show that this innovative cost estimation, obtained with this carefully controlled use of population wide databases, is a valuable alternative to traditional analyses obtained with ad hoc designed and less representative protocols.

PSY22

INDIRECT COSTS OF OBESITY IN POLAND

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OBJECTIVES: Obesity is becoming to be treated like a worldwide epidemic. In Poland about 10.6% employees are obese. The objective of the studies was to estimate the indirect costs of obesity among Polish society. **METHODS:** Human Capital Approach method was used in costs quantifying. Data were collected from obese Polish employees. Work Productivity and Activity Impairment General Health questionnaire was used to estimate absenteeism and presenteeism in obese population. Indirect cost for general population was calculated on the basis of gross value added per employee in 2008. Central Statistical Office (GUS) data were used to identify obese epidemiology in employed population. Values are presented in Euro (exchange rate: 1 EUR = 4.10 PLN). **RESULTS:** Data from 96 people were analyzed (mean age = 41.7 years, 34.4% men, average BMI = 34.2 kg/m²). Overall work impairment due to health problems in questioned population was estimated at 36.3%, with 11.8% of work time missed due to health problems. Taking into consideration that based on GUS data near 1.5 million employees are obese total indirect costs of obesity in Poland in the year 2008 were estimated at €10.5 billion representing 0.9% of gross domestic product. Absenteeism costs accounted for less than 1/3 of this costs (€3.4 billion) while presenteeism costs were estimated at amount of €7.0 billion. We didn't find any correlation between BMI score and work impairment due to health problems (Pearson $r = 0.15$). **CONCLUSIONS:** Previously estimated direct medical costs of obesity (without obesity related diseases) covered by public payer were quantified at 4 million EUR in the year 2008. We've found that indirect costs of lost productivity due to obesity are substantial to polish economy. However we conclude that not obesity itself but obesity related diseases generate most of indirect costs.

PSY23

COST OF POMPE DISEASE IN POLAND IN 2008 AND 2009

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OBJECTIVES: The objective of this review is to estimate the direct and indirect costs of Pompe disease. **METHODS:** Direct and indirect costs were estimated based on a questionnaire (consisting of 108 questions) measuring costs specific for Pompe disease and a survey concerning the enzyme replacement therapy created for the research. The direct costs of Pompe disease were estimated from the patient's social and the public health care system payer (National Health Fund) perspectives. While estimating indirect costs human capital approach methodology was used taking into consideration absence from work due to the illness, lost time and salaries of the members of the family taking care of the patients. The analysis was done in a 2-year time span. **RESULTS:** In the research 80% of Pompe disease population were studied ($N = 16$). Indirect costs constituted 3% of the total cost (€17,959.67 per patient in the period of 2 years). The highest component of the amount was the cost of the income lost by the members of the families taking care of the patients; 96% of the total direct costs were the direct medical costs (€550,975.03 per patient in the period of 2 years). The main direct medical cost determinant is the enzyme therapy (€543,350.47)-constituting 99% of the total direct medical costs. **CONCLUSIONS:** Providing patients with the prompt access to the enzyme replacement therapy result in lowering future indirect and direct costs: smaller number of patients taking disability pension, lower cost of medical equipment used by patients and higher productivity of patients able to work. Additionally there is a need to introduce an unusual and untypical approach in Health Technology Assessment.

PSY24

COST OF CARE FOR CHRONIC MYELOID LEUKEMIA (CML) IN PATIENTS EXPERIENCING RESISTANCE AND/OR INTOLERANCE TO IMATINIB FROM THE PUBLIC HEALTH SYSTEM PERSPECTIVE IN MEXICO

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OBJECTIVES: To estimate the cost of care for CML in patients with resistance and/or intolerance to imatinib from the public perspective in Mexico **METHODS:** Retrospective study of 208 patients diagnosed with CML, ≥ 18 years of age, treated with imatinib and having at least 12 months follow-up with final contact in the past three months, whom were attended at 6 tertiary level public hospitals in Mexico. Cost of care data captured includes drug costs (chemotherapy and imatinib), inpatient visits, toxicity treatment, and medical monitoring (labs studies, outpatient visits and other

drugs costs). Costs are estimated on a monthly basis and are classified according to the presence of failure (toxicity or resistance to imatinib). Descriptive statistics on the use of resources are reported. **RESULTS:** At diagnosis of CML, 95% of patients were in chronic phase and 5% in accelerated phase. Fifty-five percent were female, with a mean age of 48.30. Defining treatment failure as any imatinib dose adjustment, increasing if resistance (lack of hematological and/or cytogenetic response) or reduction if intolerance (toxicity), 84.7% of patients failed initial treatment with imatinib. The median time to imatinib dose adjustment was 5.1 months. The average monthly cost of diagnosis and treatment prior to receiving imatinib was estimated US\$2,210.54 (\$2461–\$2808); the average monthly cost during treatment of imatinib and prior to failure was estimated US\$2793 (\$1612–\$3125). The average monthly cost after failure increased to US\$4706.18 (\$3642–\$5770), which represents an increment of 68.5% (t-test $P < 0.001$). The cost drivers of the increase are primarily: 1) inpatient visits, which increase from US\$180 pre-failure to US\$367 post-failure, and 2) resources used in medical monitoring and CML treatment, which increase from US\$3678 pre-failure to US\$4338 post-failure per month. **CONCLUSIONS:** Once patients are resistant or intolerant to imatinib, their cost of treatment increases through additional demand for medical resources at Mexican public health care institutions.

PSY25

A PHARMACOECONOMIC EVALUATION OF ROMIPLOSTIM (NPLATE) FOR THE TREATMENT OF CHRONIC IMMUNE THROMBOCYTOPENIA (ITP)

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OBJECTIVES: To assess treatment costs per overall platelet response with romiplostim+concurrent treatment vs. placebo+concurrent treatment in chronic adult ITP, from a national payer perspective in Spain. **METHODS:** Platelet response was defined as a platelet count of $\geq 50 \times 10^9/L$. Overall platelet response rates to romiplostim and placebo were used for the analysis and derived from two parallel clinical trials in splenectomized and non-splenectomized ITP patients [1]. All patients were allowed to enter on concurrent ITP medication (danazol, corticosteroids, azathioprine) and receive rescue medication (eg, intravenous immunoglobulins). Treatment costs were calculated over the 24-week clinical trial period and included intervention, rescue medication and management of bleeding-related events. Costs were based on the 2009 national reimbursement list. Mean treatment cost per response was calculated for overall population, and for splenectomized and non-splenectomized patients. **RESULTS:** Cost per response was substantially lower for romiplostim compared to placebo. Overall response rate was 83% for romiplostim and 7% for placebo (splenectomized patients 79% vs. 0%, non-splenectomized patients 88% vs. 14%, respectively). Mean treatment costs were €15,781 for romiplostim and €8,111 for placebo (splenectomized patients €15,436 vs. €10,263, non-splenectomized patients €16,125 vs. €5,958, respectively). Cost per response with romiplostim was €19,013 compared to €115,871 with placebo (splenectomized patients €19,539 vs. infinite cost/response, non-splenectomized patients €18,324 vs. €42,557, respectively). The main cost-offsets were due to reduced immunoglobulin rescue use. **CONCLUSIONS:** Romiplostim represents an efficient use of health care resources in both splenectomized and non-splenectomized ITP patients for the Spanish health care system, leading to a significant improvement in managing a disease with a limited number of existing effective therapies. [1] Kuter et al. Lancet 2008;371:395–403.

PSY26

A RETROSPECTIVE STUDY TO EVALUATE THE MORBIDITY PROFILES AND THERAPEUTIC COST OF PATIENTS WITH CHRONIC PAIN IN URBAN AREA

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OBJECTIVES: Chronic pain is gaining importance as a major cost factor in health care. To gather information about analgesic pharmacotherapy of patients with chronic pain and perform cost estimations to guide future cost-effectiveness research in the area. **METHODS:** Data from patients aged above 44 years suffering from any chronic condition and receiving regular analgesic pharmacotherapy (≥ 6 months) who attended health care facilities within the area of Badalona during 2008 were collected in a retrospective study. Morbidity profiles were defined according to treatment setting (pain unit, hospital), WHO analgesic stage (1–2 versus 3), and a raw cost model based on resource use and work absenteeism was applied. Patients attending the pain unit or the hospital were considered undertreated if they were on stage 1–2 analgesics. Multiple regression was used to compare costs between undertreated and non-undertreated patients among those attending the pain unit or the hospital. **RESULTS:** Just 410 out of 18,157 patients ascertained (2.3%) were on stage 3 analgesics. Direct health care costs were greater in patients on Step 3 analgesics (mean [SD]: 5,505.6 [5,046.4]) than in patients on Steps 1 and/or 2 analgesics (€2,407.4 [2,436.2]), but not indirect costs (€258.5 [1,578.4] vs. €279.5 [1,423.6], respectively). Of patients attended in the pain unit and the hospital, 2.3% and 20.1%, respectively, were considered undertreated. Regression analyses revealed even greater costs in the subgroup of undertreated patients. **CONCLUSIONS:** Conclusion: Stage 3 analgesics are barely used. Up to one-fifth of patients may be undertreated, and prompted greater costs than those judged as properly treated. Regression analyses did not clarify what proportion of their cost excess was attributable to undertreatment.